United States Environmental Protection Agency
Region V
POLLUTION REPORT

Date: Friday, July 06, 2007
From: Sam Borries, OSC

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Subject: Initiation Of Action
Kalamazoo River OU5 - Plainwell Impoundment
Plainwell & Kalamazoo, MI

POLREP No.:	1	**Site #:**	059BBB05
Reporting Period:	3/1/07 - 7/6/07	**D.O. #:**	
Start Date:		**Response Authority:**	CERCLA
Mob Date:	3/19/2007	**Response Type:**	Time-Critical
Completion Date:		**NPL Status:**	NPL
CERCLIS ID #:		**Incident Category:**	Removal Action
RCRIS ID #:		**Contract #**	

Site Description
Former industrial and waste water treatment practices from approximately the 1950s to the mid-1970s, released polychlorinated biphenyls (PCB) into the Kalamazoo River in southwest Michigan. At least one source of the PCB was a result of paper mills in the Kalamazoo, Michigan area processing/de-inking carbonless copy paper containing PCB. These paper mills released PCB from their waste water into the Kalamazoo River system, some of which deposited in the area of the river known as the Plainwell Impoundment (which was created as a result of the building of a hydroelectric dam on the Kalamazoo River in the early 1900s).

Following the Federal government□s ban on the production of PCB in 1976, the use of PCB in the production of carbonless copy paper ended. However, given the persistent and toxic nature of PCB in the environment, and their ability to accumulate in the tissues of wildlife, several investigations of the sediments and soils in the Kalamazoo River and the Plainwell Impoundment took place from 1993 to 2006.

During the 1993 and 1994 Remedial Investigation/Feasibility Study, the environmental consulting firm known as Blasland, Bouck, and Lee, Inc. (BBL) collected 125 sediment samples and 135 floodplain soil samples from within the channel of the former Plainwell Impoundment and its floodplain. The total PCB concentrations of the sediment samples ranged from non-detect to 139 milligrams per kilogram (mg/kg), while the total PCB concentrations for the soil samples ranged from non-detect to 85 mg/kg.

In 2001, EPA conducted a two-phase sampling program in which it collected a total of 213

sediment samples and 759 soil samples from the Kalamazoo River and its floodplain. The total PCB concentrations of the sediments ranged from non-detect to 33 mg/kg, for Phase I, and from non-detect to 4.2 mg/kg, for Phase II. The total PCB concentrations of the soil samples ranged from non-detect to 84 mg/kg, for Phase I, and from non-detect to 158 mg/kg, for Phase II.

In 2006, BBL collected 222 sediment samples from areas in and around the Kalamazoo River that were judged to be □hotspots.□ The total PCB concentrations ranged from non-detect to 220 mg/kg.

U.S. EPA initiated a responsible party time-critical removal action (TCRA) to address the contamination existing in the Plainwell Impoundment and the Kalamazoo River, and coordinated this removal action with the potentially responsible parties of the Kalamazoo River Study Group (KRSG). The KRSG companies conducting the TCRA are Millennium Holdings, LLC and Georgia-Pacific, LLC.

The Allied Paper Inc./Portage Creek/Kalamazoo River Superfund Site (Site) encompasses the Kalamazoo River from Morrow Dam to Lake Michigan and approximately 3 miles of Portage Creek to the Kalamazoo River. The removal action will take place in the former Plainwell Impoundment, which is located in Gun Plain and Otsego Townships, downstream of Plainwell, Michigan. The removal activities will occur in an area approximately 3,000 feet upstream of the US 131 bridge to approximately 500 feet downstream of the Plainwell Dam. This covers a length of approximately 1.5 river miles and will result in removing approximately 132,000 cubic yards of floodplain soil and river sediment. The former power house of the Plainwell Dam will be removed as part of this TCRA restoring the Kalamazoo River to a free flowing river in its original channel.

Additional site description and history can be found in the February 2007 Former Plainwell Impoundment Time-Critical Removal Action Design Report, Administrative Settlement Agreement and Order on Consent for Removal Action, the Time Critical Removal Action Memorandum and other Administrative Record documents.

Current Activities

Between March 1, 2007 and July 6, 2007 representatives of ARCADIS-BBL, and its contractors:

1) Obtained access from property owners.
2) Mobilized equipment and personnel.
3) Conducted site preparation activities such as clearing and grubbing of excavation areas, constructed haul roads and staging/treatment pad 1N.
4) Mobilized and installed water treatment and soil/sediment stabilizing facilities on pad 1N.
5) Identified and obtained off-site disposal agreements with commercial facilities for disposal of TSCA (Wayne Disposal, Belleville Michigan) and non-TSCA (C & C Landfill, Marshall, Michigan) regulated soil/sediments.
6) Established security and perimeter boundaries.

7) Initiated excavation of floodplain soils in Removal Area 1 on June 7, 2007.
8) As of June 27 completed non-TSCA excavations in Removal Area 1 and a portion of Removal Area 2 for a total of approximately 2,200 cy removed and disposed covering approximately 1,400 liner feet of riverbank.
9) Other activities that have occurred during this timeframe include surveying, sampling, etc.

Planned Removal Actions
Overall the TCRA encompasses the following removal actions related to the PCB-impacted sediments and soils in the Kalamazoo River and the Plainwell Impoundment:

(1) dredging and/or excavation of PCB-contaminated sediments behind the Plainwell Dam, from three discrete sediment areas, and within 40 feet from the existing bank; (2) cutting back and stabilizing the river banks to mitigate exposures to the PCB-contaminated banks and to control future erosion and achieve a stable channel; (3) removal of PCB-contaminated floodplain soils known from current data to contain PCB levels greater than 50 mg/kg; (4) removal of PCB-contaminated soil in excess of 4 mg/kg from the river□s floodplain on or near residential properties upstream of US-131; (5) dewatering, as necessary, and disposal of all excavated PCB-contaminated sediment and soil to the approved landfills; (6) utilizing clean soils excavated as a part of the bank cutback work to cover floodplain soil contaminated above human health or ecological risk levels to the extent that clean soil can be identified and isolated for use as cover; (7) controlling the resuspension of sediments; (8) evaluating the impact of removing PCB-contaminated sediments located next to the Plainwell dam; (9) evaluating the potential of permanently lowering the river□s water level in order to minimize the movement of PCB-contaminated sediments; (10) removing one or more portions of the Plainwell Dam structure, as needed, to reduce the risk of sudden failure of the Plainwell Dam structure, and to minimize the short- and long-term PCB contamination from banks and the floodplain; and (11) establishing a stable river channel, re-vegetating the excavated areas with native plant species, and maintaining appropriate monitoring during and after the removal activities. Outside of the monitoring requirements these activities are anticipated to require two construction seasons to complete with final field restoration to occur most likely in the spring of 2009.

Specific for this reporting period the contractor will continue to excavate non-TSCA regulated (

Next Steps
Continue excavation of sediments from Removal Area 2A and continue to move downstream into Removal Area 3A; collect cleanup verification sediment samples from excavated Areas; stage, dewater, load, and haul PCB-impacted sediments to the approved landfills; continue the site preparation activities related to the12th Street Dam; and continue survey activities related to current and future excavation areas.

Key Issues
The progress of excavation activity is based on weather conditions and the extent of PCB contamination in Removal Areas.

Estimated Costs *

	Budgeted	Total To Date	Remaining	% Remaining
Extramural Costs				
Intramural Costs				
Total Site Costs	$0.00	$0.00	$0.00	0.00%

* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

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